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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/935,579	08/24/2001	Luca Chiarabini	60004720-3	5207

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EXAMINER	
POON, KING Y	

ART UNIT	PAPER NUMBER
2625	

DATE MAILED: 08/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/935,579	CHIARABINI ET AL.	
	Examiner	Art Unit	
	King Y. Poon	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 June 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *24-32 and 35-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *28 and 39* is/are allowed.

6)☒ Claim(s) *24-27,29-32 and 35-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 24, 25, 27, 29-31, 35, 36, 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris (US 5,438,436) in view of Kadowaki (US 6,313,921) LeClair et al (US 5,727,137), and Hines (US 6,392,758).

Regarding claims 24: Harris teaches a computer-implemented (fig. 14) method comprising: on a first thread downloading first and second (pages, column 18, lines 40-45) compressed (column 36, lines 48-55) pieces of data for first and second images, the first and second pieces of data received from an external source (column 1, lines 15-20) over a communication network (column 9, lines 5-6); on a third thread, applying processing (fax processor, fig. 14) to the first and second pieces of data store in a memory (column 21, lines 35-39) to provide first and second processed pieces of memory data; on a fourth thread, sending the first and second processed pieces of memory data to a print spooler (1422, fig. 14, column 18,lines 53-62) to provide first and second pieces of print-ready data; and on a fifth thread transferring the first and second pieces of print-ready data through an input/output to a printer (column 18, lines 60-68) effective to enable the printer to print the first and second images; wherein the acts of

downloading the first piece of data on the first thread, applying processing to the first piece of-memory data on the third thread, sending the first processed of memory data on the fourth-thread, and transferring the first piece of print-ready data on the fifth thread are performed in the given order (please see discussion above), wherein at least the sending to a spooler and printing are performed in parallel (column 18, lines 55-68, column 19, lines 1-3), wherein the act of downloading is responsive to a user request to print (the user that sends the fax) the images and the act of decompressing, apply, sending, and transferring are performed without further request from the user or another user (the discussion of column 17, 18 of Harris does not mention a request from another user besides an original fax (fax by a user, column 14, lines 53)).

Harris does not shown decompresses the compressed data and processing is image processing.

Kadowaki, in the same are of fax machine, (column 22, lines 55-60) teaches to decode (decompress) the coded data into raster image data and the decompressed image data are subjected to image processing (column 23, lines 1-10).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Harris's fax machine to include: decompresses the compressed data and processing is image processing such that the image data is printable with the printer such as printing with the printer's resolution as taught by Kodowaki, column 23, lines 1-9.

Harris also does not show sending the processed data to a print spooler through a printer driver.

Leclair, in the same area of fax machine (column 7, lines 65-67, column 8, lines 1-2), teaches processed image data are sent to a spooler through a printer driver, column 1, lines 60-68, column 2, lines 1-5, column 5, lines 5-15).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Harris to include: sending the processed data to a print spooler through a printer driver such that Harris's invention would be relied on traditional/proven fax machine printing technique to generate a desired print result such as avoiding ink over saturation, (column 5, lines 57-61, Leclair).

Harris does not teach wherein one or more act of applying, sending, and transferring are performed in parallel on different threads.

Hines, in the same area of sending images data to a spooler before sending to a printer, teaches wherein one or more act of applying image processing, sending, and transferring are performed in parallel on different threads (column 5, lines 15).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Harris to include: wherein one or more act of applying, sending, and transferring are performed in parallel on different threads to increase overall throughput of the system, column 5, lines 5-10, Hines.

Regarding claim 25: Kadowaki teaches it is well known in the art to send email using compressed raster data (23, lines 1-7).

Regarding claim 27: Harris teaches wherein the first and the second image each comprises a page of a document (column 18, lines 40-45).

Regarding claim 29: Harris teaches wherein the acts of downloading the second compressed piece of data on the first thread, decompressing the second compressed piece of data on the second thread, applying image processing to the second piece of memory data on the third thread, sending the second processed piece of memory data on the fourth thread, and transferring the second piece of print-ready data on the fifth thread are performed in the given order (see discussion of claim 24).

Regarding claim 30: Harris teaches the method of claim 24, wherein the act of decompressing the first compressed piece of data on the second thread is performed immediately after completion of downloading of the first compressed piece of data on the first thread (see discussion of claim 24, decompression of an image is impossible to be acted on without first downloads the image; the first compressed image is being regarded as the fax page being received by the fax receiving task ahead of next fax page (second compressed image data)).

Regarding claim 31: Okimoto teaches the method of claim 24, wherein the act of downloading the first and second compressed pieces of data on the first thread downloads the second compressed piece of data immediately after downloading the first compressed piece of data (see discussion of claim 24, the first compressed image is being regarded as the first page being received by the fax receiving task ahead of next fax (second compressed image data)).

Regarding claim 35: See discussion of claim 24.

Harris further teaches wherein at least the sending to a spooler, the receiving of a other pages, and printing are performed in parallel (column 18, lines 55-68, column

19, lines 1-3; note a fax machine inherently can scan in document a page at a time and continuously sending the scanned images)

Regarding claim 36: Kadowaki teaches it is well known in the art to send email using compressed raster data (23, lines 1-7).

Regarding claim 38: Harris teaches wherein the first and the second image each comprises a page of a document (column 18, lines 40-45).

3. Claims 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over LeClair (US 5,727,137) in view of Hines (US 6,392,758)

Regarding claim 32: LeClair teaches a computer-implemented (column 7, lines 60-67, column 8, lines 1-2) method comprising: applying image processing (column 5, lines 32-55) to a pieces of memory data (column 4, line 25-31) to provide processed piece of memory data; sending the processed pieces of memory data trough a print driver (column 5, lines 10-25) to a print spooler (column 20, lines 60-67, column 21, lines 1-10) to provide pieces of print-ready data (ready to be sent to the printer); and transferring the pieces of print-ready data through an input/output to a printer effective to enable the printer to print the one or more images associated with the pieces of memory data (column 5, lines 10-15); wherein the acts of applying, sending and transferring are responsive to no more than one user interaction (column 1,lines 40-45; in the case of fax, a fax is generally faxed by a user, also see column 14, lines 53, Harris).

Although LeClair teaches sending images data to a spooler before sending to a printer; LaClair does not teach wherein one or more act of applying, sending, and transferring are performed in parallel on different threads.

Hines, in the same area of sending images data to a spooler before sending to a printer, teaches wherein one or more act of applying image processing, sending, and transferring are performed in parallel on different threads (column 5, lines 15).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified LeClair to include: wherein one or more act of applying, sending, and transferring are performed in parallel on different threads to increase overall throughput of the system, column 5, lines 5-10, Hines.

4. Claims 26, 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris (US 5,438,436) in view of Kadowaki (US 6,313,921), LeClair et al (US 5,727,137) and Hines as applied to claims 24, 35 above, and further in view of Houghton et al (US 6,009,153).

Regarding claims 26, 37: Harris does not teach wherein the communication network comprises a global Internet.

However, Houghton in the same area of fax machine, teaches it is well known in the art to fax through a global Internet (column 3, lines 45-50).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Harris to include: teach wherein the

communication network comprises a global Internet such that the fax of a user would be able to reach other users through out the world cheaply.

5. Claims 24-26, 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art and Kageyama (US 6,025,923).

Regarding claims 24-26, 35-37: Applicant admitted prior art teaches all of the claimed limitations (page 2, lines 18-27, page 1,lines 20-25) except wherein three or more of these acts/threads are performed concurrently for different images.

Kageyama, in the same area of processing tasks by a processor, teaches it is well known in the art process tasks concurrently (fig. 13).

Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified admitted prior art to include: wherein three or more of these acts are performed concurrently for different images to speed up processing.

Allowable Subject Matter

6. Claims 28, 39 are allowed.

Response to Arguments

7. Applicant's arguments with respect to claims 24-27, 29-32, 35-38 have been considered but are moot in view of the new ground(s) of rejection.

Please see detailed office action.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is 571-272-7440. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on 571-272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

August 7, 2006

KING Y. POON
PRIMARY EXAMINER